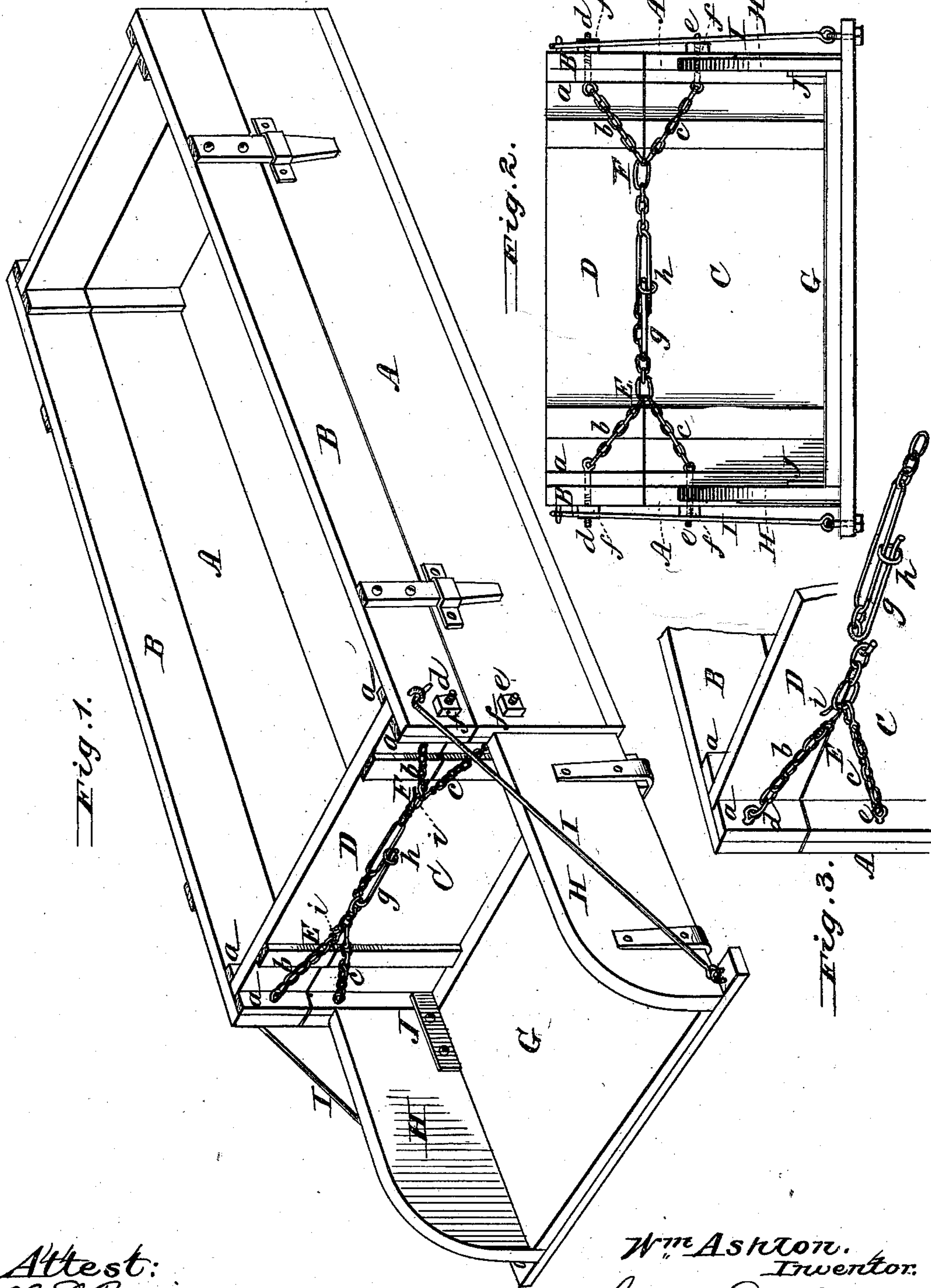


W. ASHTON.  
End-Gate for Grain-Wagons.

No. 203,101.

Patented April 30, 1878.



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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN END-GATES FOR GRAIN-WAGONS.

Specification forming part of Letters Patent No. **203,101**, dated April 30, 1878; application filed April 6, 1878.

*To all whom it may concern:*

Be it known that I, WILLIAM ASHTON, of Hinckley, in the county of De Kalb and State of Illinois, have invented certain new and useful Improvements in End-Gates for Grain-Wagons; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My improvement is designed for use with an extension or double or single body and end-gates of a grain-wagon, the object being to hold the body from spreading under the load, to bind the end-gates in place with the sides, to prevent all rattling of the extension-body and end-gates, and especially to effect the loosening of the end-gates quickly and easily to allow them to be removed from the wagon sides for the discharge of the grain.

The device for effecting this consists of a double forked chain in two parts, united at or near the middle of the end-gate by a buckle or tie, the forks or branches of each part of the chain being fastened to the fixed and removable sections of the body, so as to cross the joining of the sides and end-gates and bring the buckle or tie in line with such joining, thereby holding and bracing alike both side sections of the body in relation to the end-gates. The buckle or tie, combined with these branched chain parts, is a simple bent tongue, united by eye-connection with the end of one part of the chain, and, hooking into a link of the other chain part, is turned back and fastened by a sliding ring of a long link of the tongue-carrying chain part, so as to give a drawing action of the chain parts toward the middle of the end-gates and bring and bind the separate sides hard upon the separate end-gates by causing the chain to draw alike upon both the sides in a line coincident with the joining of the top box with the fixed body.

By this simple and effective construction the fastening and holding of the parts at the middle of the gate can be quickly made, and the gates loosened by striking the ring from the chain-tongue, so that said gates can be taken

out at once, leaving the corn in the wagon free to be scooped out over a side-guarded extension, secured to the body by outside hooks and supported by inside bottom irons.

Referring to the drawings, Figure 1 represents a view, in perspective, of a grain-wagon embracing my invention; Fig. 2, a view of the end-gates bound together by the two-part branched chains and the middle buckle or tie in the line of the junction of said gates, and Fig. 3 a modification of the buckle.

The wagon box or body A has the usual top box or removable extension B, secured in place by side cleats and loops, or in any other suitable way. The sections of the body are provided with the usual cleats *a* on the inner sides, at the rear end, to form sash-holds for the ends of the gate, which is in sections C D, corresponding to the side sections of the body. The loaded grain tends to spread the sides of the body and leave the gates loose, and various fastening devices have been made to avoid the objections resulting therefrom.

I use a chain-fastening of peculiar construction, and combine it with the fixed and removable extensions of the body in a manner to effect an equal binding of both sections of the sides upon both sections of the gate. This fastening device consists of a chain of two parts, E F, each having a forked connection, *b c*, with the separate sides of the body, and crossing equally the joining of said sides and of the end-gates in a manner to bring the buckle or tie in the middle and in a horizontal line coincident with the joining of the end-gates, so that when the two chain parts E F are drawn together the strain upon the top-box sides will be toward each other and downward, while the fixed-body sides will in like manner be drawn together with equal force. The oblique chain-connections *b c* are secured to the sides of the box by screw-bolts *d e* and nuts *f*, as shown in the drawings; and the fastening is effected at or near the middle of the end-gates by a simple buckle or tie, formed of a bent tongue, *g*, connected by eye-joint to one part, F, of the chain, and, passing through a link of the other part, E, of the chain, is turned back, so as to lap with the tongue part F, to which it is locked by a slide-ring, *h*, which is easily slipped over the end of said tongue.



The length of the chain parts and the bend of the tongue are such as to give the required drawing force upon the body sides and hold them hard upon the gates. To release the fastening and the end-gates, it is only necessary to knock off the slide-ring from the end of the tongue, which is slightly curved to prevent it from being jarred off. This is done in a moment, and all the parts are loose at once to allow the end-gates to be raised out of their guides to give free access to the grain, which falls upon an extension, G, provided with sides H, and secured in place to the end of the fixed body by hook-rods I, jointed to the rear end of said extension and hooked into eyes in the outer sides of the top box. The extension is supported by side irons J, projecting from its sides and resting upon the bottom at its rear end and against the outside end cleats, as shown in Fig. 1. This extension is used only when the wagon is brought up to the crib for unloading the corn, and can be attached to and used for each wagon for scooping out the load into the crib.

When the removable sides B are not used, the parts *b* of the chains attached thereto are unhooked by hooks *i* from the parts *c*, and the latter will form a straight chain by taking up several links with the buckle-tie; and any suit-

able form of buckle-tie may be used for the purpose.

I claim—

1. The combination, with a wagon-body having a top section and an end-gate of corresponding sections sashed therein, of a two-part chain-fastening, connected to the top and fixed body sides, crossing obliquely the joining of the body and gate sections, and fastened at or near the middle of the end-gate, substantially as specified.

2. The combination, with the wagon-body and the end-gate, of corresponding sections and the two-part chain, connecting the fixed and top body sections, as described, of the buckle or tie, consisting of a bent tongue and slide-ring, operated as stated.

3. In a wagon end-gate fastening, the chains *c c*, detachable from the chains *b b*, and the latter being provided with a take-up buckle-tie, in combination with the body A and end-gate C, as specified.

In testimony that I claim the foregoing I have affixed my signature in the presence of two witnesses.

WILLIAM ASHTON.

Witnesses:

MERRITT F. POTTER,  
FRANK S. POTTER.